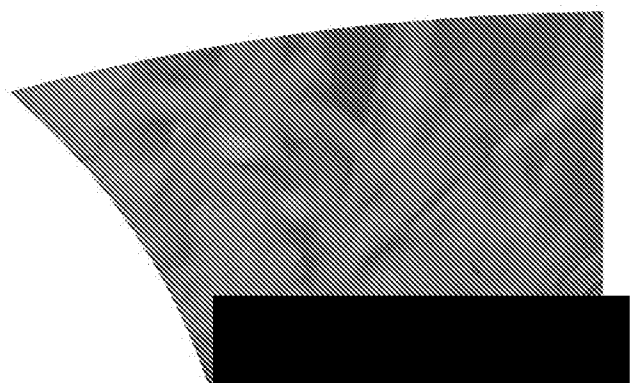




Arboricultural Method Statement

Land at Climping

26th August 2021



Arboricultural Method Statement

Land at Climping

26/08/2021

Vivid & Climping Homes

Unit 1, Station Industrial Park

Duncan Road

Park Gate

Hampshire, SO31 1BX

Document Control:

Project no.	Project
9709	Land at Climping, Littlehampton

Ver/rev	Written By:	Checked by:	Authorised by:	Date
Rev0	Peter Davies	Abi St Aubyn	Paul Carter	26 August 2021

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Phlorum Limited

Southern Office: Unit 12, Hunns Mere Way, Brighton, BN2 6AH

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1. Introduction

This arboricultural method statement should be read in conjunction with arboricultural survey ref. 9709 Arb Rev0 and arboricultural impact assessment ref. 9709 AIA Rev0.

Instruction

- 1.1 Phlorum Ltd has been instructed by Vivid & Climping Homes Ltd to provide an arboricultural method statement in accordance with BS5837: 2012 '*Trees in relation to design, demolition and construction – Recommendations*', for the proposed residential development on land at Climping.

Objectives of this Report

- 1.2 In order to safeguard retained trees on site during development works it is necessary to implement a tree protection strategy. The objective of the following arboricultural method statement is to provide protection methodology for retained trees throughout the construction period, including the above ground and below ground parts of the trees as well as their rooting medium. This report is concerned with the protection of all retained trees at the site including trees around the curtilage with the potential to be impacted by the construction works.

Contents of this Report

- 1.3 This report includes the following:
 - ☛ Arboricultural Method Statement; and
 - ☛ Tree Protection Plan.

Proposal

- 1.4 The proposal is to construct a 300 plot residential development with associated landscaping and infrastructure, including a new round-a-bout at the junction of Church Lane and the A259.

Documents and Information Provided

- 1.5 The following documents were used to aid the preparation of this report:
 - ☛ V-300 S – Proposed Site Plan
 - ☛ D1886-PL001-4 – Proposed Drainage Layout

Limitations of Report

This document is based on the plans and information made available to the author on the date of the report.

2. Arboricultural Method Statement

General Requirements

- 2.1 The arboricultural method statement and Tree Protection Plan shall remain on site for the duration of construction and landscaping works and be available to site operatives at all times. All operatives at the site shall be briefed about tree related factors as part of their site induction.
- 2.2 Any variation from the methodology described in this method statement shall be discussed with the supervising arboriculturist and agreed with the local authority arboricultural officer.

Phasing of Works

- 2.3 To ensure trees are protected throughout the development, the proposed development shall occur in the following order:

Table 1: Phasing of works

Works Order	Operation	Notes
1	Initial site meeting	The project arboriculturist shall attend a site meeting with the site manager.. During the meeting, the locations for tree protection barriers and the initial tree works shall be clearly identified.
2	Initial tree works	The tree works contractor shall undertake the tree removals and access facilitation pruning specified in the arboricultural impact assessment.
3	Installation of tree protection barriers.	Tree protection fencing shall be installed in the locations shown on the Tree Protection Plan and to the specification described in this method statement.

Works Order	Operation	Notes
4	Pre-commencement meeting.	The project arboriculturist shall attend a site meeting with the site manager. The local authority arboricultural officer shall be notified so they may also attend. The above pre-start arboricultural works shall be signed off by the project arboriculturist during the meeting. The meeting shall occur before any plant activity, ground works or construction activities begin.
5	Construction phase.	The tree protection barriers shall be maintained, and the construction exclusion zones observed throughout the construction phase. Arboricultural supervision shall be undertaken as described in this method statement.
6	Soft landscaping phase	The tree protection barriers shall be dismantled when external construction and hard landscape operations have been completed and plant machinery or excess construction materials have been removed from site. Soft landscape operations shall occur sensitively as described in this method statement.

Initial Tree Works

- 2.4 The tree removals specified in the arboricultural impact assessment shall be undertaken as the first phase of development.
- 2.5 Any requirements for access facilitation pruning which have not been anticipated on the date of this report shall be discussed at the pre-commencement meeting with the project arboriculturist and be agreed with the local authority arboricultural officer. No works may be carried out to protected trees without prior permission from the local authority.
- 2.6 If bonfires are lit to dispose of arising's from the vegetation clearance works, an assessment of wind direction and strength shall be made to ensure flames cannot extend within 5m of any part of a retained tree. No bonfires shall be lit within a root protection area
- 2.7 Trees should be checked for protected species before the works are undertaken. It is against the law to disturb nesting birds under the Wildlife and Countryside Act. If protected species are discovered, Natural England should be contacted for advice.

- 2.8 The tree works contractors should carry out all tree works to BS3998: 2010 '*Tree works – recommendations*' as modified by research that is more recent. They should also carry relevant, adequate and up to date insurance.
- 2.9 It is suggested that an Arboricultural Association approved contractor carry out all tree works. Approved contractors are expected to work to industry best standards. The Arboricultural Association website (www.trees.org.uk) contains contact details and information on engaging a suitable contractor.

Tree Protection Barriers

- 2.10 The root protection areas of retained trees must be left free from disturbance, and protected from contamination or compaction during the proposed works. Protection shall comprise the installation of tree protection fencing in order to create construction exclusion zones.
- 2.11 Tree protection fencing shall be installed in the locations shown on the Tree Protection Plan. The specification for tree protection fencing shall be metal welded mesh panels (e.g. Heras panels), in concrete or rubber feet. The panels shall be supported by metal stabiliser struts mounted on either a base plate secured by ground pins, or in a block tray (refer to Appendix B). Any variation from this specification for tree protection fencing shall be discussed with the project arboriculturist and agreed in writing with the local authority arboricultural officer.
- 2.12 Signs shall be affixed to the fencing as shown in Appendix C to explain its purpose. The signs shall be affixed at a reasonable size and frequency to ensure they are easily visible to operatives at the site.
- 2.13 The tree protection fencing shall be installed before any plant activity, ground works or construction activities commence at the site. They shall be maintained in situ until the soft landscaping phase of development when all other construction activities in the vicinity have been completed, and excess construction materials and plant machinery have been removed from site.
- 2.14 Any damage that occurs to the tree protection fencing during the construction period must be rectified immediately, prior to other construction activities recommencing in the vicinity.
- 2.15 The areas protected by tree protection fencing (highlighted yellow on the Tree Protection Plan) shall be referred to as the construction exclusion zones. The following restrictions shall apply within the construction exclusion zones:
- ☒ No vehicular access shall be permitted.
 - ☒ Regular pedestrian access shall be restricted unless on suitable ground protection measures agreed with the project arboriculturist.
 - ☒ No storage of construction materials shall occur.
 - ☒ No storage of building spoil or construction debris (including short-term temporary storage) shall occur.
 - ☒ No harmful chemicals shall be stored or handled.

- ☒ No fires shall be permitted.
- ☒ No mechanical excavation including regrading of levels shall occur.
- ☒ There shall be no change in ground level unless undertaken under the supervision of the project arboriculturist.
- ☒ No construction activities including installation of new permanent hard standing shall be undertaken unless otherwise specified in this method statement.

Storage and Handling of Harmful Chemicals

- 2.16 Provision must be taken to prevent the storage and handling of harmful chemicals within the root protection areas of retained trees, including on the area of temporary ground protection. Harmful chemicals include fuels, oils, bitumen, builder's sand (which has a high salt content) and cement. Provision shall also be made to prevent the storage and handling of harmful chemicals in areas proposed for further planting if the existing soil is intended to be retained.
- 2.17 Cement mixing shall always occur outside the construction exclusion zones. If cement mixing is to occur close to the construction exclusion zone, or there is the potential for cement washings to leech into a root protection area, adequate, bunded ground protection measures must be used. This could comprise impermeable plastic sheeting under wooden boards (to prevent tears) surrounded by a raised lip.
- 2.18 All other chemicals that are harmful to trees must be stowed in suitable containers and stored away from the construction exclusion zones unless adequate, bunded ground protection measures are implemented to prevent spillages leeching into root protection areas.

Contractor Facilities

- 2.19 A suitable location for site cabins, contractor parking and site facilities for operatives shall be agreed with the project arboriculturist during the pre-commencement meeting if not already specified in a construction management plan that has been signed off by the project arboriculturist. These facilities must be located outside the root protection areas of all retained trees unless on adequate ground protection measures that have been agreed with the project arboriculturist (potentially including existing hard standing). Provision must be taken to prevent exhaust fumes or hot air from generators or kitchen facilities from damaging foliage within the crowns of retained trees.

Services

- 2.20 New swales/attenuation basins will be excavated within the root protection areas of T3, G6, T40 and G47, in the areas hatched pink on the Tree Protection Plan. The excavation within these areas is to occur under the supervision of the project arboriculturist. Roots revealed shall be cleanly pruned using secateurs to leave the smallest feasible wound. Small clean pruning wounds require less energy from the tree to heal and reduce the chance of infection by tree pathogens. Roots over 25mm diameter must not be pruned unless the project arboriculturist has first been consulted to assess the potential impact on the trees.
- 2.21 A new underground pipe will be installed beneath Church Lane, within the root protection area of third party group G86. Within the root protection area, all excavation shall occur carefully using hand tools or an airspade, unless under the supervision of the project arboriculturist. Roots revealed under 25mm diameter may be cleanly pruned using secateurs to leave the smallest feasible wounds. Roots over 25mm shall not be pruned unless the project arboriculturist has first been consulted.
- 2.22 Revealed roots that are to be retained shall immediately be wrapped in hessian cloth. This will help protect the delicate root bark during remaining excavation works and help prevent desiccation or frost damage if the excavation is left exposed for prolonged periods. The hessian cloth shall be removed when the trench is backfilled.
- 2.23 When the trench is backfilled, roots that are retained shall be surrounded by a small amount of inert granular material mixed with sharp sand or topsoil. This will help prevent damage to the roots if the soil is compacted when the trench is backfilled.
- 2.24 Details of the routing of utility services for the proposed development are not currently available. All underground services should be located outside the root protection areas of retained trees and above ground services should be located outside the anticipated mature crown spreads. Sympathetic methodology to enable the installation of services within root protection areas (in certain instances) is available, however there will always be a potential arboricultural impact and arboricultural advice must be sought regarding the suitability of these methods before they are relied upon. If it is achievable, root protection areas should always be completely avoided.
- 2.25 Once details of the routing of new services become available, prior to commencement, these shall be reviewed by the project arboriculturist. The arboriculturist shall then confirm either that no works will be carried out within root protection areas or provide details of the methodology required to ensure the works are carried out in accordance with NJUG4 '*Guidelines for the planning, installation and maintenance of utilities in proximity to trees*' and BS5837: 2012.

Constructing New Hard Standing Within Root Protection Areas

- 2.26 The new footpaths encroaching the root protection areas of groups G21, G22, G25 and G47 are shown as areas of light blue hatch on the Tree Protection Plan. These shall be constructed to the principal specification described in the arboricultural impact assessment. The detailed specification (including levels) for the new footpaths to be constructed within these root protection areas shall be provided by an engineer but must be signed off by the project arboriculturist before implementation to ensure compliance with arboricultural requirements.
- 2.27 Prior to construction of these footpaths, the existing ground vegetation (e.g. grass sward or up to 50mm of leaf litter) shall be removed using controlled hand tools such as a spade or turf cutter. The underlying soil must be fully retained and protected. Plant machinery may not be used to scrape vegetation unless under the supervision of the project arboriculturist and tree stumps should be removed from root protection areas carefully using a stump grinder. If obvious surface tree roots are present or if the soil is known to be shallow, then use of plant machinery will not be appropriate.
- 2.28 The footpaths shall be installed by a process of 'rolling out' the cellular confinement system. This means that as one section of the cellular confinement system is installed, it will provide ground protection and create access for plant machinery to allow the next section to be installed (a tracked excavator and dumper truck are usually required to install a cellular confinement system). Vehicular access onto exposed ground within the root protection areas of retained trees shall be prohibited at all times unless adequate temporary ground protection measures are agreed with the project arboriculturist.
- 2.29 If access is required onto a cellular confinement system before the wearing course installed, a temporary surface (such as thick plywood or metal boards depending on the load needing support) shall be installed above a geotextile membrane to prevent soil and other building debris blocking the airspaces in the cellular confinement system, which could otherwise reduce the porosity of the completed surface.
- 2.30 When the cellular confinement system has been filled with clean angular stone, this should not be compacted to the point it compacts the underlying soil. Four passes with a smooth roller (max weight 1000kg without vibration) or several passes by a tracked excavator should be sufficient. Checks should be made before laying the wearing course to ensure the infill is fully consolidated.
- 2.31 The finished level of the no-dig footpaths will be higher than the surrounding un-surfaced ground. To mitigate this, clean-screened topsoil may be banked around the edge of the surface. It is recommended that no less than a gradient of 1:3 is created as increasing the ground level within a root protection area can disrupt root function. It is also necessary to avoid banking soil around the buttresses or buttress roots of retained trees.

- 2.32 New footpaths that will cannot be of a no-dig specification will be constructed within the root protection areas of G13, G63, G66 and T73. All soil stripping within these root protection areas must occur under arboricultural supervision to ensure appropriate root pruning is undertaken and that the retention of the adjacent trees will be viable.

Soft Landscaping within Root Protection Areas

- 2.33 Soft landscaping within the root protection areas of retained trees shall occur as the final phase of development, when all other construction activities in the vicinity have been completed and it is safe to dismantle the tree protection barriers.
- 2.34 The detailed specification for soft landscaping is to be confirmed on the date of this report, however will potentially include turfing and tree/shrub planting within root protection areas.
- 2.35 All planting stock, topsoil and other soft landscaping materials shall be stockpiled outside the root protection areas of retained trees. When the tree protection barriers have been dismantled, the extents of the root protection areas shall be made clear to operatives at the site by other means (e.g. ground marker paint or similar). The standard restrictions to works within the construction exclusion zones will still apply during the soft landscaping phase of development.
- 2.36 Where new turf or grass seed is to be laid within the root protection areas of retained trees, topsoil will likely need to be imported. The existing soil may be lightly tilled by hand but use of rotavators or plant machinery will be prohibited. A maximum increase of 100mm of topsoil may be introduced to a root protection area to avoid suffocating existing root growth. Care must be taken to prevent soil being piled against tree buttresses or buttress roots.
- 2.37 When soil or other materials are transported across a root protection area in wet conditions, scaffold board pathways must be used to prevent compaction of the rooting medium. It should be noted that even pedestrian traffic can compact the soil in wet conditions.
- 2.38 All planting pits within root protection areas shall be individually hand excavated (no trench planting). Care must be taken to avoid severing or damaging roots with a diameter greater than 25mm.

Pre-commencement Arboricultural Input

- 2.39 Prior to the commencement of works, arboricultural input will be required for the following aspects of development:
- ☛ The construction management plan including phasing of works and site set up.
 - ☛ The routing of new utility services.
 - ☛ The final levels based on detailed design.

- ☛ The above soil footpath specifications adjacent to G21, G22, G25 and G47.
- 2.40 If necessary, this arboricultural method statement and tree protection plan shall be updated to accommodate the above aspects of the project and the revised information submitted to the local authority tree officer for approval.

Pre-commencement meeting

- 2.41 A pre-commencement meeting shall be held between the contractors and the project arboriculturist. The local authority arboricultural officer shall be given reasonable notice of the pre-commencement meeting so they may also attend. The purpose of the pre-commencement meeting shall be:
- ☛ To clarify the tree protection methodology with the site manager.
 - ☛ To explain the implications of the tree preservation order.
 - ☛ To discuss the chronology and phasing of the project with the site manager.
 - ☛ To sign off that the pre-commencement tree works have been completed as specified in the arboricultural impact assessment, and to discuss any requirements for any further pruning which had not been anticipated prior to the meeting.
 - ☛ To sign off that the tree protection fencing has been installed in the correct locations and to the agreed specification. To agree revised locations subject to the phasing of the development.
 - ☛ To agree with the local authority arboricultural officer the type and timings of arboricultural monitoring necessary.
- 2.42 Following this meeting, if the local authority arboricultural officer has not been able to attend, an email outlining the actions discussed will be sent to the tree officer for approval. If necessary, a revised tree protection plan and method statement will be issued for approval.

Arboricultural Supervision

- 2.43 The project arboriculturist shall supervise:
- ☛ All excavation in the areas hatch pink on the Tree Protection Plan.
 - ☛ The installation of above soil surfacing within root protection areas.

Arboricultural Monitoring

- 2.44 The site manager shall provide a monthly update to the project arboriculturist including photographic evidence that the tree protection barriers are intact and that the construction exclusion zones have been observed.

- 2.45 In addition to the above, a system and programme of onsite monitoring by the appointed arboricultural consultant shall be agreed with the Local Authority Arboricultural Officer. The form and frequency of site monitoring shall be agreed at the pre-commencement meeting.

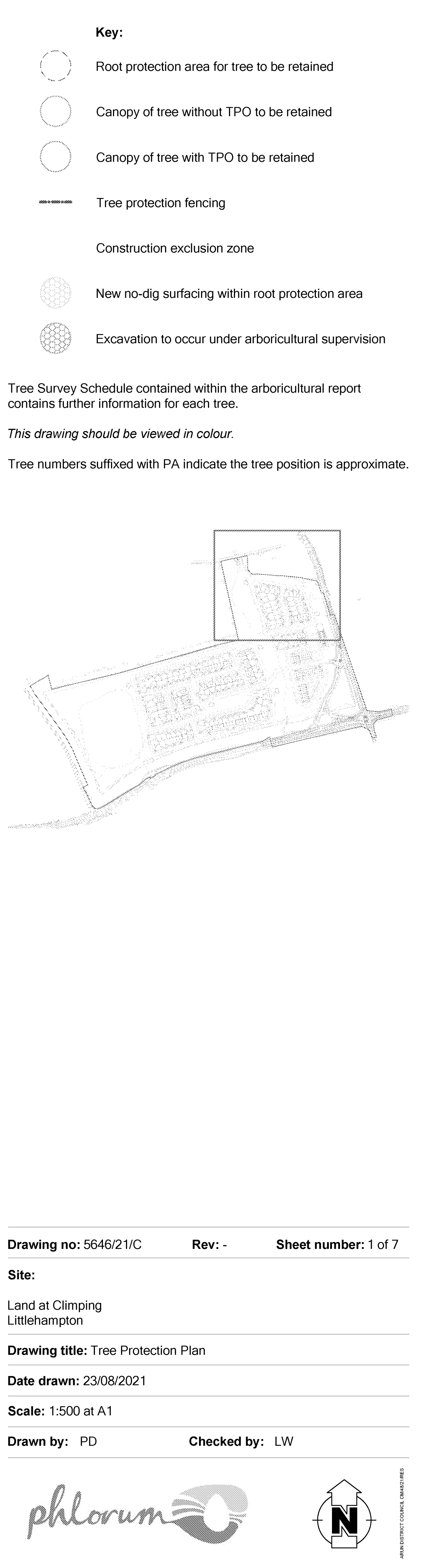
Process if an Unforeseen Issue Relating to Trees Arises

- 2.46 If significant root growth is disturbed during construction activities that are not within the scope of this report, the work shall cease until the project arboriculturist has been consulted. Roots greater than 25mm in diameter or dense/matted fibrous roots shall be considered significant root growth. It should be remembered that whilst root protection areas are part of industry best practice, tree root growth is influenced by a number of factors and may not conform to expected ideals.
- 2.47 If at any time during the construction process, damage is inadvertently caused to a tree, the project arboriculturist shall be notified to assess the likely implications and to prescribe potential remedial measures to be implemented. Damage can be in the form of chemical or fuel spillage, mechanical damage to either the above ground parts of the tree or the roots, fire or any other unforeseen circumstance.
- 2.48 The supervising arboriculturist shall be appointed by the contractor. It will be necessary for the arboriculturist to report to the local planning authority on the outcome of the site visits as well as any unforeseen tree related issues.

Figures and Appendices

Appendix A

Tree Protection Plan





Key:

- Root protection area for tree to be retained
- Canopy of tree without TPO to be retained
- Canopy of tree with TPO to be retained
- Tree protection fencing
- Construction exclusion zone
- New no-dig surfacing within root protection area
- Excavation to occur under arboricultural supervision

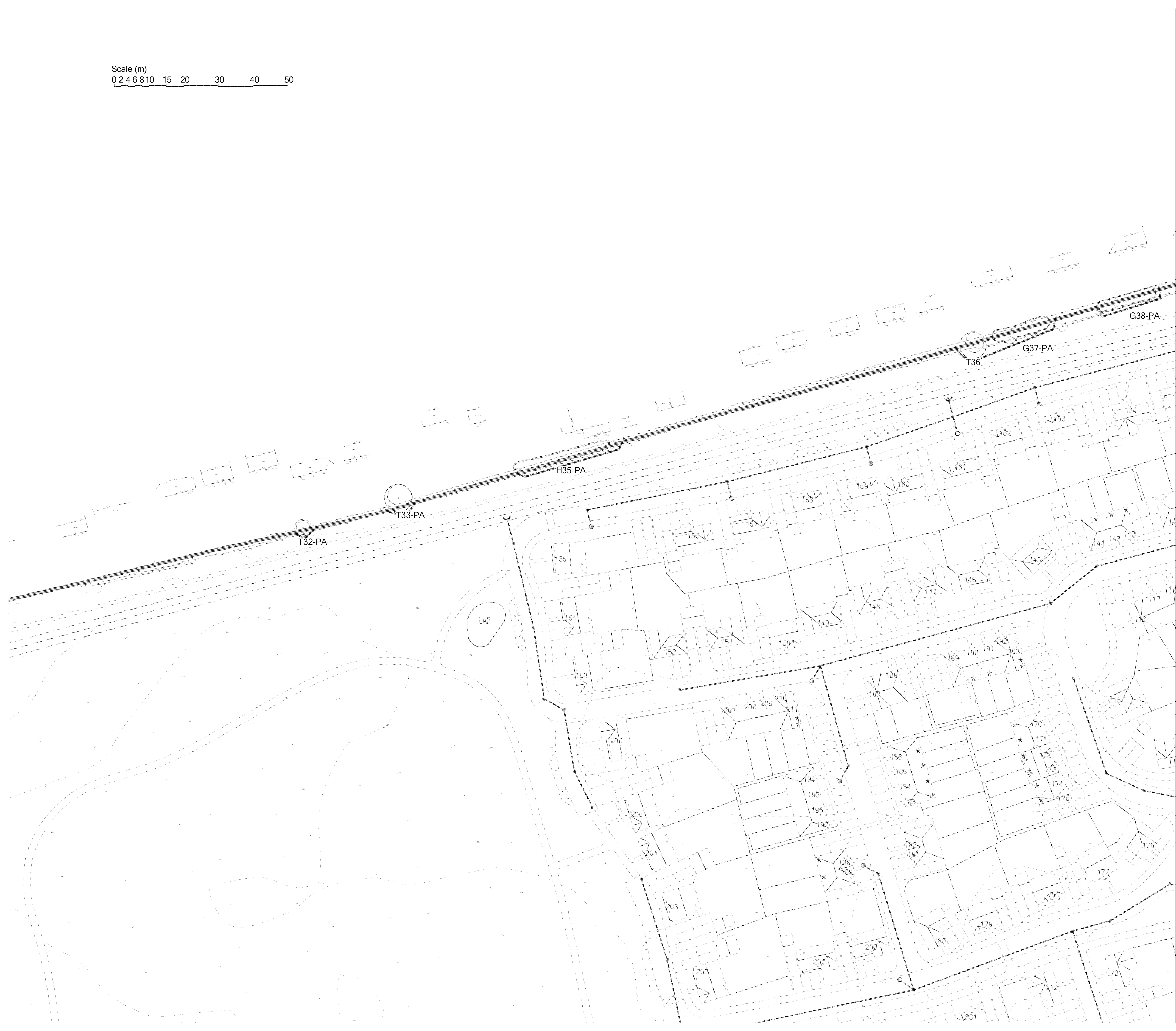
Tree Survey Schedule contained within the arboricultural report contains further information for each tree.

This drawing should be viewed in colour.

Tree numbers suffixed with PA indicate the tree position is approximate.

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Site: Land at Climping Littlehampton		
Drawing title: Tree Protection Plan		
Date drawn: 23/08/2021		
Scale: 1:500 at A1		
Drawn by: PD	Checked by: LW	

ARBORICULTURAL CONSULTANTS



Root protection area for tree to be retained

Canopy of tree without TPO to be retained

Canopy of tree with TPO to be retained

Construction exclusion zone



New no-dig surfacing within root protection area

 Excavation to occur under arboricultural supervision

This drawing should be viewed in colour.

Site:

Drawing title: Tree Protection Plan

Date drawn: 23/08/2021

Scale: 1:500 at A1

Drawn by: PD

Checked by: LW

Scale (m)
0 2 4 6 8 10 15 20 30 40 50

G28-PA

H30

G27-PA

G25-PA

Area for potential
future
infrastructure
project by WSCC

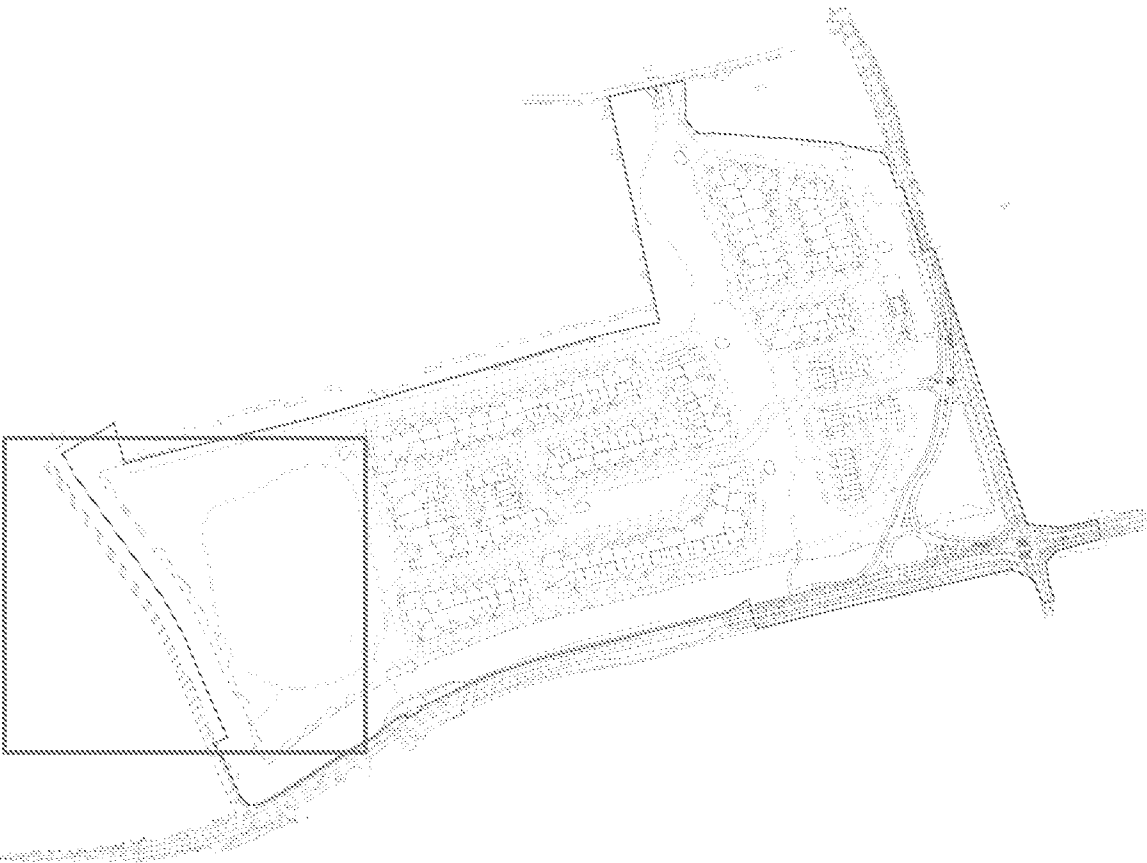
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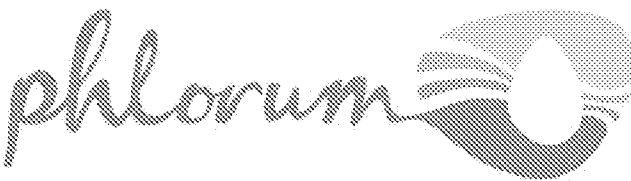
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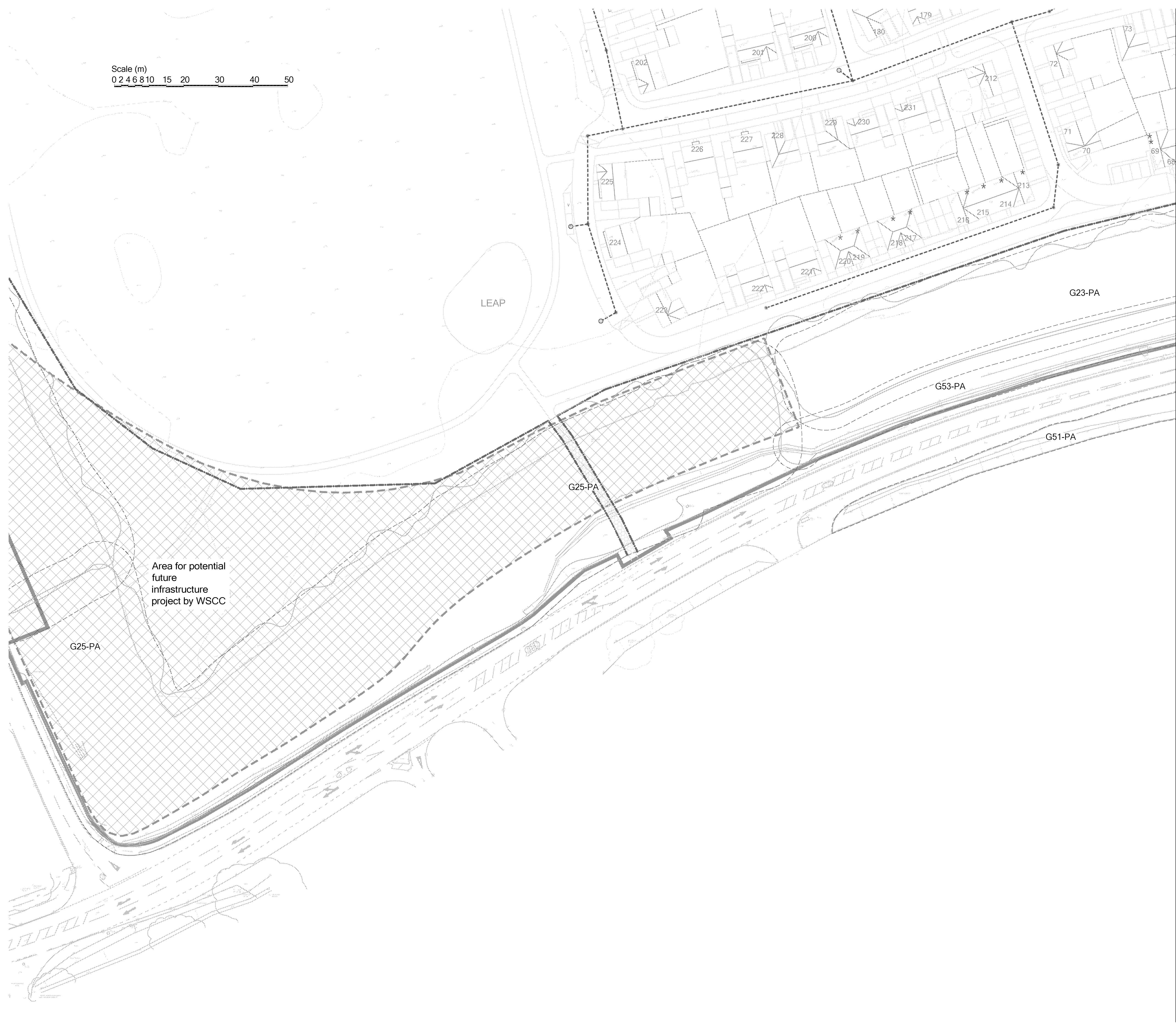
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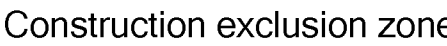


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Drawing no: 5646/21/C **Rev:** - **Sheet number:** 5 of 7

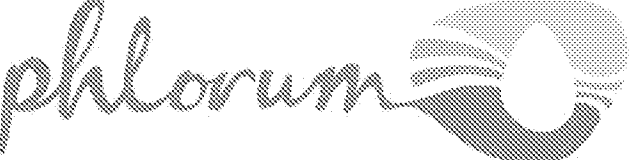
Site:
Land at Climping
Littlehampton

Drawing title: Tree Protection Plan

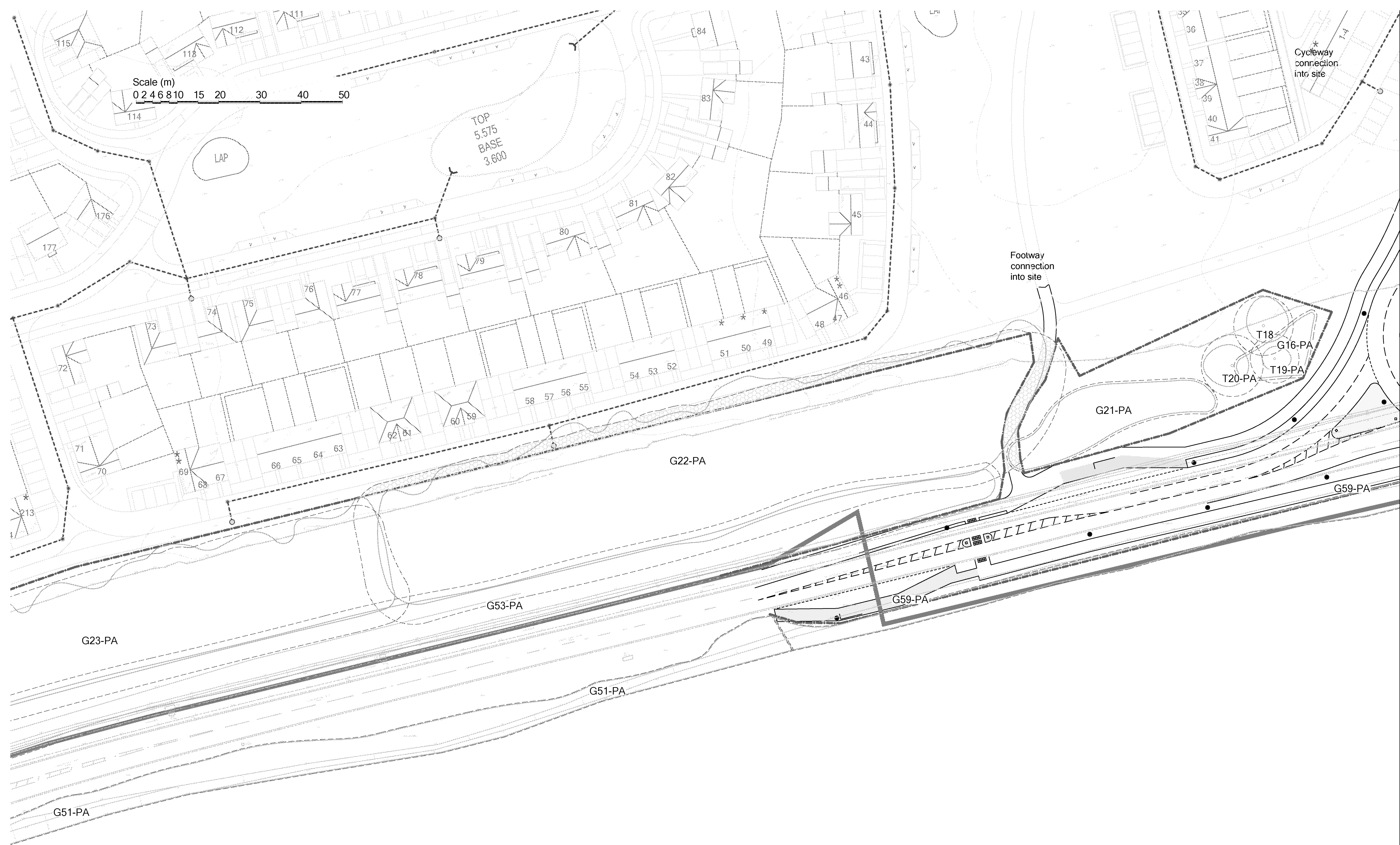
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Scale: 1:500 at A1

Drawn by: PD **Checked by:** LW

APRIM DISTRICT COUNCIL CLIMPTON TREES



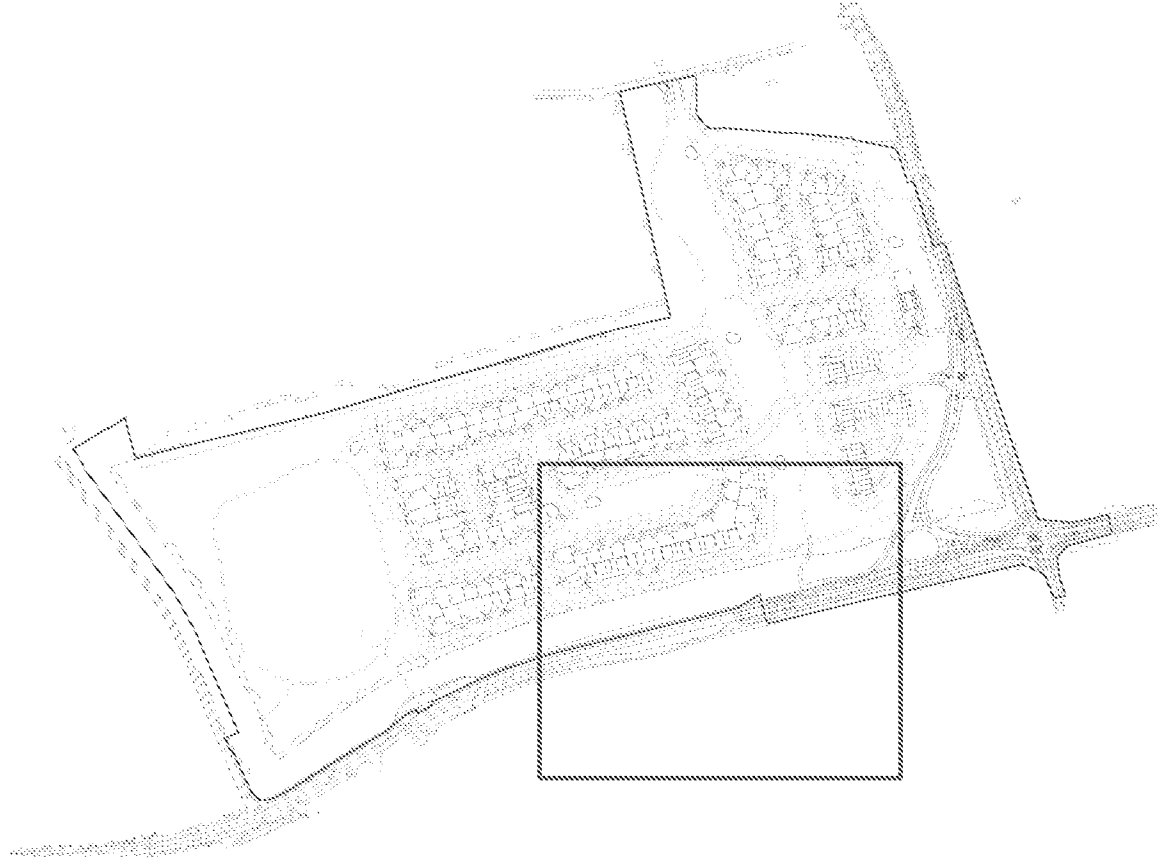
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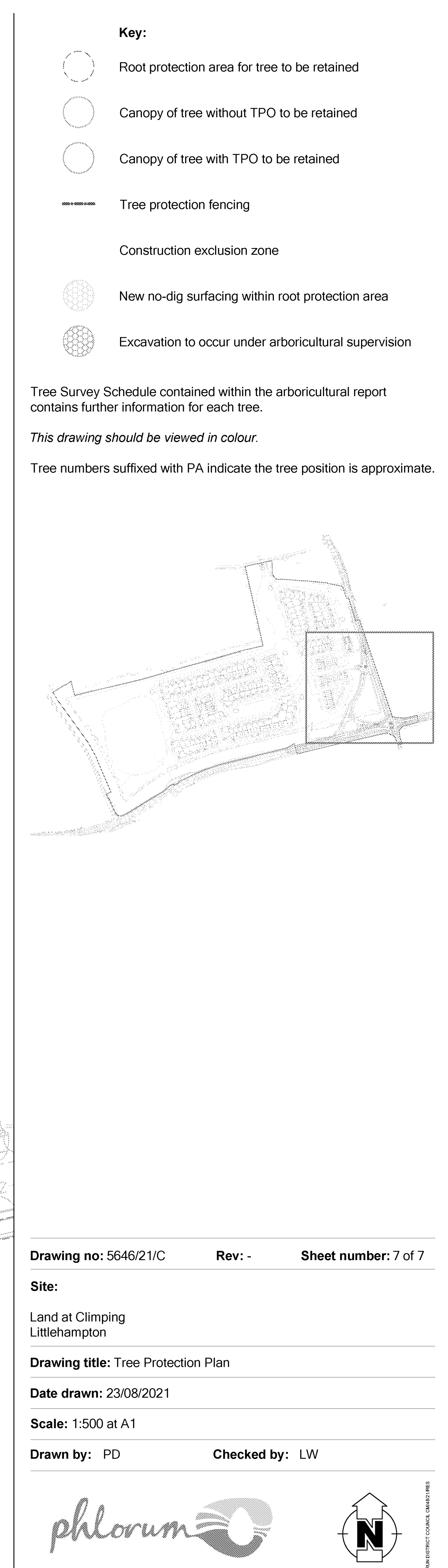
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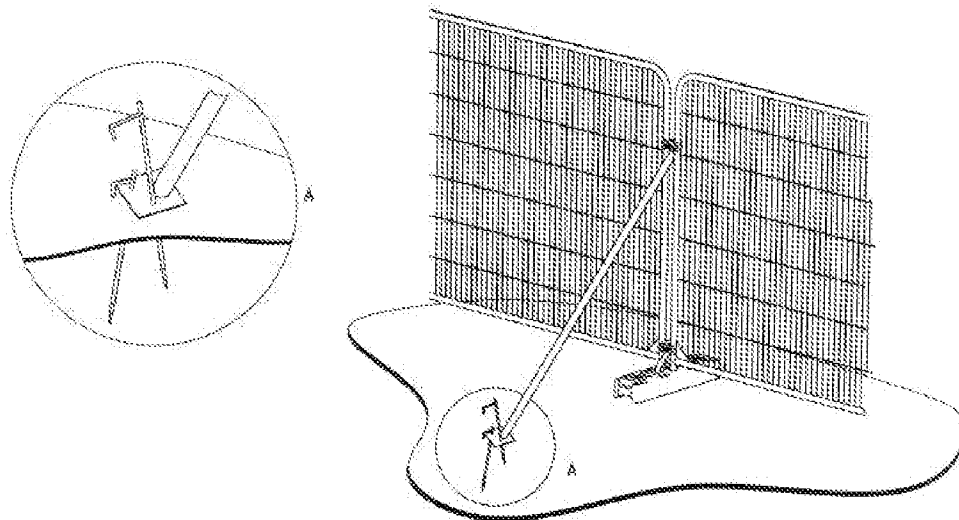


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Land at Climping Littlehampton		
Drawing title: Tree Protection Plan		
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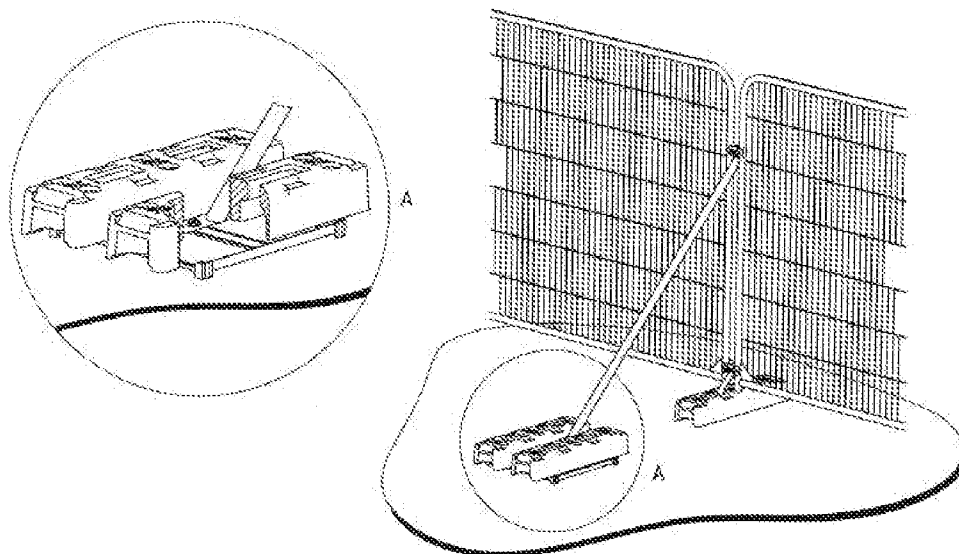


Appendix B

Tree Protection Fencing Specification



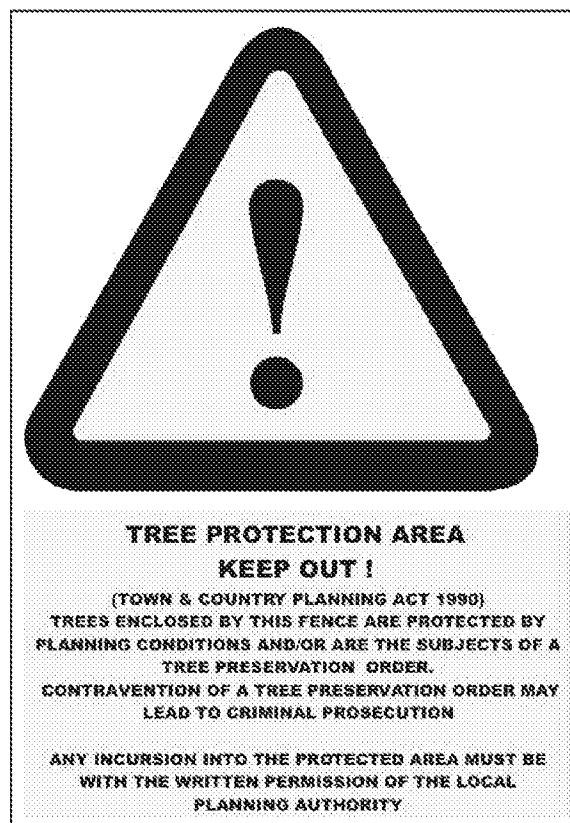
a) Stabilizer strut with base plate secured with ground pins



b) Stabilizer strut mounted on block tray

Appendix C

Example Protective Fencing Sign



Phlorum Limited

Head Office & Registered Office:

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